

Claims:

1. Process for the purification of riboflavin comprising the steps of
 - (a) precipitating a first crystalline form of riboflavin,
 - (b) isolating the first crystalline form of riboflavin,
 - (c) transforming the first crystalline form of riboflavin into a second crystalline form of riboflavin under conditions that decompose diluted DNA, and
 - (d) isolating the second crystalline form of riboflavin,provided that at ambient temperature the first crystalline form of riboflavin is thermodynamically less stable than the second crystalline form of riboflavin.
2. Process according to claim 1, characterized in that after step (b) the process comprises the step of pasteurizing the first crystalline form of riboflavin.
3. Process according to any of the preceding claims, characterized in that the first crystalline form of riboflavin is a riboflavin hydrate.
4. Process according to claim 3, characterized in that the riboflavin hydrate is riboflavin dihydrate.
5. Process according to any of the preceding claims, characterized in that the second crystalline form of riboflavin is riboflavin anhydrate I.
6. Process according to any of the preceding claims, characterized in that in step (c) the conditions that decompose diluted DNA are acidic or basic conditions.
7. Process according to claim 6, characterized in that the acidic conditions are caused by an acid having a concentration of between 10^{-4} and 10^{-1} mol l⁻¹.
8. Process according to any of the preceding claims, characterized in that in step (a) the precipitation of the first crystalline form of riboflavin is induced by means of seed crystals.

9. Process according to claim 8, characterized in that the seed crystals comprise seed crystals of a riboflavin hydrate.
10. Process according to claim 9, characterized in that the seed crystals of the riboflavin hydrate are seed crystals of riboflavin dihydrate or seed crystals of riboflavin monohydrate.
11. Process according to any of the preceding claims, characterized in that step (c) is performed at a temperature of between 60°C and 75°C using
- (i) a mineral acid,
 - (ii) a base, or
 - (iii) an organic acid.
12. Process according to any of the preceding claims, characterized in that in step (c) a slurry containing the first crystalline form of riboflavin is pumped continuously through a heat exchanger and further pumped through a tube equipped with a jacket heating and either a multistage stirring system or static mixers.